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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/786,511

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Richard P. Schubert

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11/29/2005

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EXAMINER

LAM, DAVID

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/786,511	Applicant(s) SCHUBERT, RICHARD P.	
	Examiner David Lam	Art Unit 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-22 is/are allowed.
- 6) ☒ Claim(s) 1, 4 and 8-12, 15 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 5-7, 13 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 November 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/25/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. The drawing are objected to because On Figure 1, output node “135” should be changed to -- 125 --. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: On page 7, line 14, “memory cell 135” should be change to -- memory cell 110 --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4, 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagatomo (6,243,297).

Regarding to claims 1, 4, 8-10, Nagatomo discloses a memory device comprising: a write circuit (40) defining an output node, and selectable connecting at least one memory cell to the output node to permit a discharge associated with a write operation to flow to the output node; a write strength selection circuit (30, 50) that modifies at least one characteristic of the discharge flowing to the output node; wherein the at least one characteristic is at least one of a current level and a quantity of charge; wherein the at least one memory cell comprises a plurality of memory cells arranged in a plurality of rows and a plurality of columns, and further comprising a plurality of pass circuit (transistors connected to Y_0 , Y_1); wherein the write circuit comprises at least one inverter; wherein the discharge flowing to the output node flows through the output node. *See Figs. 1, 4-7; Cols. 5-6; 9-11.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagatomo (6,243,297).

With respect to claims 11, 15 although Nagatomo discloses all the elements of the memory device as applied to claim 1 above but lack an inclusion of wherein the at least one memory cell comprises a plurality of static random access memory (SRAM) cells; and at least one failure-analysis memory cell that has an intentional defect. The use of a static random access memory (SRAM) cells and the at least one failure-analysis memory cell within a semiconductor memory device would have been known and available in the art. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify accordingly in order to improve efficiency of faulty analysis in a semiconductor memory device.

Note: Col. 5, lines 47-65 of Hamada (6,363,500) cited to support known position.

5. Claim 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Nagatomo (6,243,297) in view of Tsuda et al. (6,808,124).

Nagatomo disclose a memory device comprising a write circuit (40) that selectably connected to at least one memory cell to an output node via one of a bit line and a complementary bit lines (See Fig. 1).

Nagatomo fails to disclose wherein the write circuit comprises three inverters.

Tsuda et al. Disclose a memory device comprising a write circuit (1) comprise three inverters. (See Fig. 1)

It would have been obvious to one having ordinary skill in the art at the time of the invention to provide the write circuit of Nagatomo that comprises three inverter as taught by Tsuda et al. to provide a high-speed, size and cost reduction semiconductor memory device.

Allowable Subject Matter

6. Claims 2-3, 6-7, 13-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach the above noted memory device and wherein the write strength selector circuit has a strong write state associated with a first value of the at least one characteristic, and a weak write state associated with a second value of the at least one characteristic.

7. The following is an examiner's statement of reasons for allowance: Claims 16-22 are allowable over the prior art of record because none of the prior art whether taken singularly or in combination, especially when these limitations are considered within the specific combination claimed, to teach: method for testing a memory device comprising step of directing a weak write operation to at least one memory cell by controlling at least one characteristic of the discharge flowing to the output node, and among other steps as claimed in independent claims 16, 21.

Conclusion

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Adam et al. (6,657,886) disclose a split local and continuous bit line for fast domino read SRAM.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lam whose telephone number is 571-272-1782. The examiner can normally be reached on 6:00 – 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarabian Amir can be reached on 571-272-1852852. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D. Lam

November 25, 2005


DAVID LAM
PRIMARY EXAMINER